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IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|---------------------------------------|---|-----------------|
| In re Application of | : | PATENT |
| | : | |
| Michael Kühn et al. | : | |
| | : | |
| Serial No.: 10/519,784 | : | Group Art Unit: |
| | : | |
| Filed: December 29, 2004 | : | Examiner: |
| | : | |
| For: HYDROPNEUMATIC SUSPENSION | : | |

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**SUBMISSION OF ENGLISH LANGUAGE
PRELIMINARY EXAMINATION REPORT**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith is an English language Preliminary Examination Report for the above-identified application.

Respectfully submitted,

Mark S. Bicks
Reg. No. 28,770

Roylance, Abrams, Berdo & Goodman, LLP
1300 19th Street, NW, Suite 600
Washington, DC 20036
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Dated: May 17, 2006

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

BARTELS UND PARTNER
Lange Strasse 51
70174 Stuttgart
ALLEMAGNE

Bartels und Partner
Patentanwälte

Received: 04. MAI 2006

TERMIN

Date of mailing (day/month/year)
27 April 2006 (27.04.2006)

Applicant's or agent's file reference
40cdh/229149

IMPORTANT NOTIFICATION

International application No.
PCT/EP2004/003759

International filing date (day/month/year)
08 April 2004 (08.04.2004)

Applicant

HYDAC SYSTEM GMBH et al.

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Agnes Wittmann-Regis

Facsimile No.+41 22 740 14 35

Facsimile No.+41 22 338 89 70

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Bartels und Partner
Patentanwälte

Eingegangen:

Received:

04. MAI 2006

TERMIN

| | | |
|--|--|--|
| Applicant's or agent's file reference 40cdh/229149 | FOR FURTHER ACTION See item 4 below | |
| International application No. PCT/EP2004/003759 | International filing date (day/month/year) 08 April 2004 (08.04.2004) | Priority date (day/month/year) 09 May 2003 (09.05.2003) |
| International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237 | | |
| Applicant HYDAC SYSTEM GMBH | | |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report
18 April 2006 (18.04.2006)

Authorized officer

Agnes Wittmann-Regis

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Patentanwälte

Eingegangen: 04. MAI 2006
Received:

PATENT COOPERATION TREATY

TERMIN

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

Applicant's or agent's file reference
40cdh/229149

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/EP2004/003759

International filing date (day/month/year)
08.04.2004

Priority date (day/month/year)
09.05.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant
HYDAC SYSTEM GMBH

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003759

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003759

Box No. II

Priority

1. ☒ The following document has not yet been furnished:
 - ☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003759

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-9

YES

Claims

NO

Inventive step (IS)

Claims 1-9

YES

Claims

NO

Industrial applicability (IA)

Claims 1-9

YES

Claims

NO

2. Citations and explanations:

1. Reference is made to the following document:

D1: US-A-3761110

2. Document D1 is considered to be the closest prior art to the subject-matter of claim 1. It discloses (the references between parentheses refer to this document):

a hydropneumatic suspension comprising a suspension cylinder (1) and a hydraulic accumulator (8) which is embodied as a suspension accumulator, and a pilot valve (7) for unblocking or blocking a fluid-guiding connection between the suspension cylinder (1) and the suspension accumulator (8), it being possible to move the pilot valve (7) into the closed position by means of a hydraulic triggering device (12), and the hydraulic triggering device (12) tapping the fluid pressure between the suspension accumulator (8) and assigned suspension cylinder (1) and redirecting it onto an actuating side (20) of the pilot valve (7) via an on-off valve (12) and a pilot supply line (11).

3. The problem to be solved with the present invention

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003759

Box No. V

Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

can thus be considered to be that a compact valve control device which is efficient in terms of energy is provided for hydropneumatic suspensions, said valve control device ensuring gentle release of the hydropneumatic suspensions, i.e. without "bucking" of the vehicle.

4. The application proposes the following solution: a further proportional valve (50) can be connected into the respectively assignable pilot supply line (38) or is connected into it between the one on-off valve (24) and the pilot valve (20).

Such an arrangement in a hydropneumatic suspension system is neither known from the available prior art nor suggested by it.

The solution proposed to this problem in claim 1 of the present application therefore involves an inventive step (PCT Article 33(3)):

Claims 2 to 10 are dependent on claim 1 and therefore also meet the PCT requirements with respect to novelty and inventive step.